Import API Data Into Excel

How to use the Stack Overflow API to import data into Excel.

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PDF VERSION

Tags | **Data** | **Reporting** | **Excel** | **API** |

Applies to: Free, Basic, Business Enterprise

Overview

With Stack Overflow API v3, you can import your site's data into an Excel spreadsheet for analysis and reporting. Some examples of the type of Stack Overflow data you can process with Excel:

- Content (questions, answers or articles)
- Tag management
- User and User Group data
- Collections data

Before you begin, it's important to understand what data you can access with the API. To familiarize yourself with the Stack Overflow API, start with our Teams Enterprise or Teams Basic & Business API documentation.

After you identify the data you want, you'll use an API request to create a JSON file you can import into Excel. You can also connect Excel directly to the Stack Overflow API (Windows computers only).

NOTE: *This guide provides a basic overview of extracting data from the Stack Overflow API into Excel. Depending on your specific needs, you may need to explore more advanced features of the API or Excel's Power Query.*

Before you begin

To set up the API data import into Excel, you'll need the following:

- A sufficiently up-to-date Excel application and license. We use Excel 16.70 in the examples below.
- For Stack Overflow API access:
  - Adequate API permissions for the request.
  - API V3 enabled on your application.
  - A valid API token/key.
- **For JSON file import**, an appropriate tool to save the API response as a JSON file.
- **For direct API access from Excel**, a Windows computer.

API import with JSON data file

Generate an API request

1. Referring to the API documentation, construct your API request URL with the endpoint relevant to the data you need. For example, to get questions tagged with “Habitat” (tag ID 5), your URL would look like one of the examples below (depending on Stack Overflow plan).

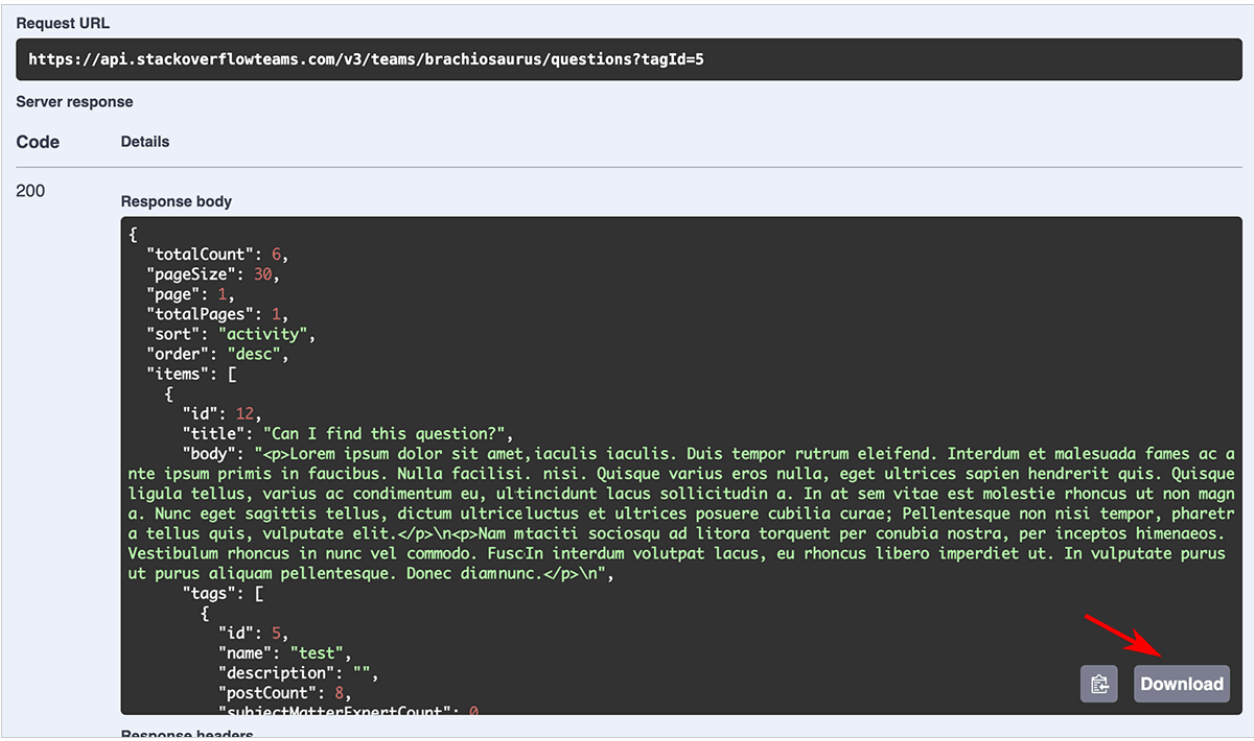
   Teams Basic & Business
   `https://api.stackoverflowteams.com/v3/teams/brachiosaurus/questions?tagId=5`

   Teams Enterprise
   `https://[your_site]/api/v3/questions?tagId=5`

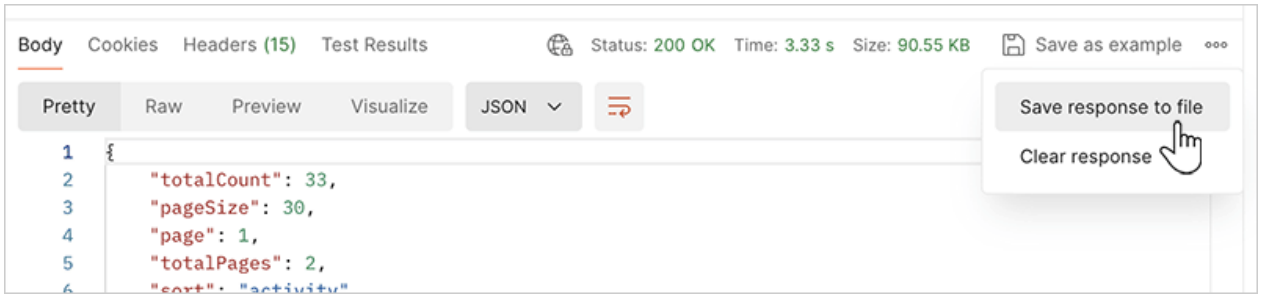
2. Using your API v3 query URL, access the API using the tool of your choice (for example: Swagger UI or Postman).

3. Save the response to a JSON file.

   To save the data as a JSON file using Swagger UI on your Stack Overflow for Teams site, press the **Download** button.

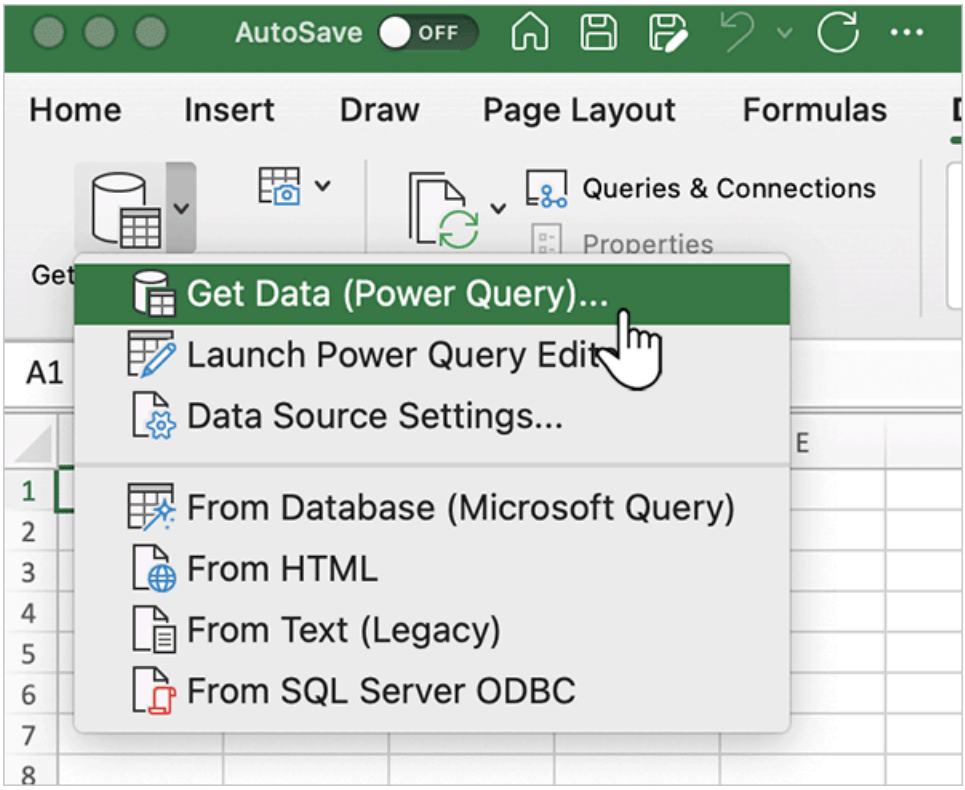


   To save the data as a JSON file with Postman, click **Save response to file**.

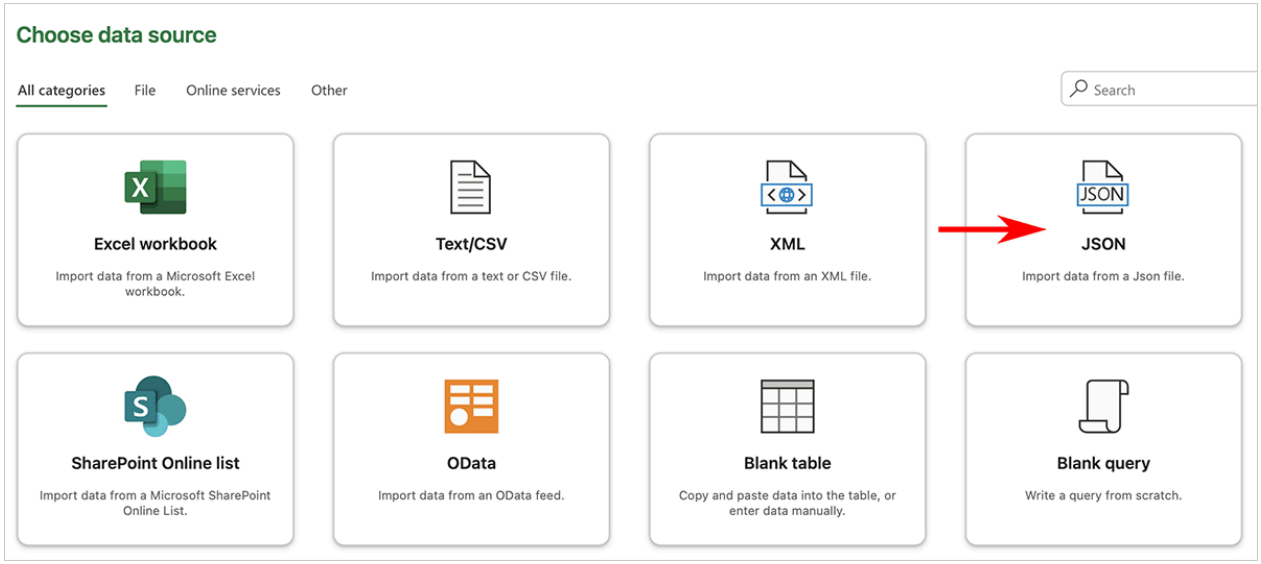


Import the JSON data file into Excel

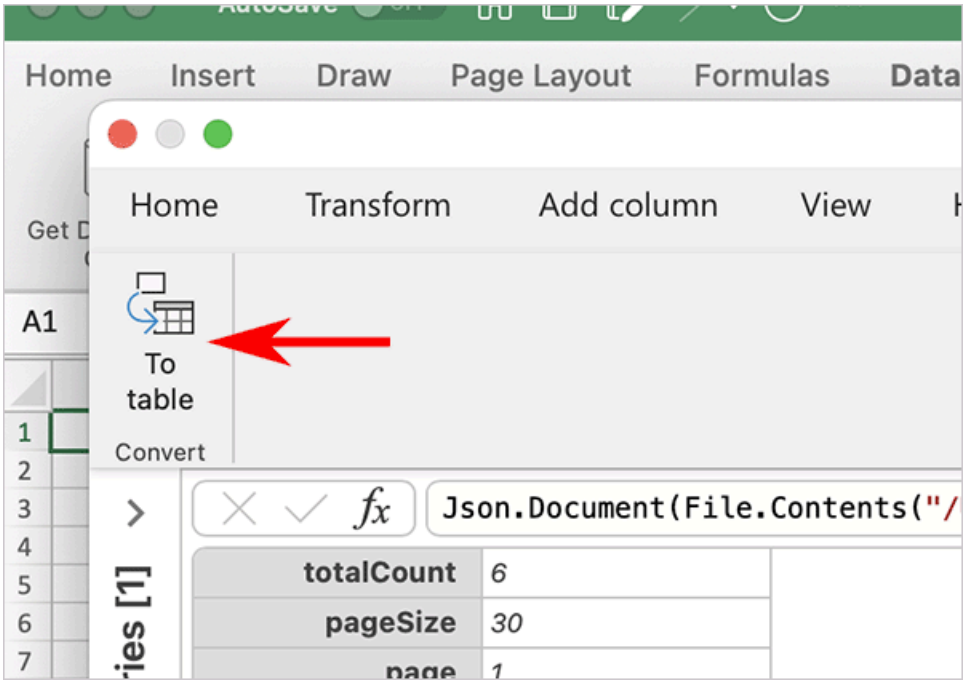
1. Open Excel and go to the **Data** tab.
2. Click **Get Data**, then **Get Data (Power Query)**.



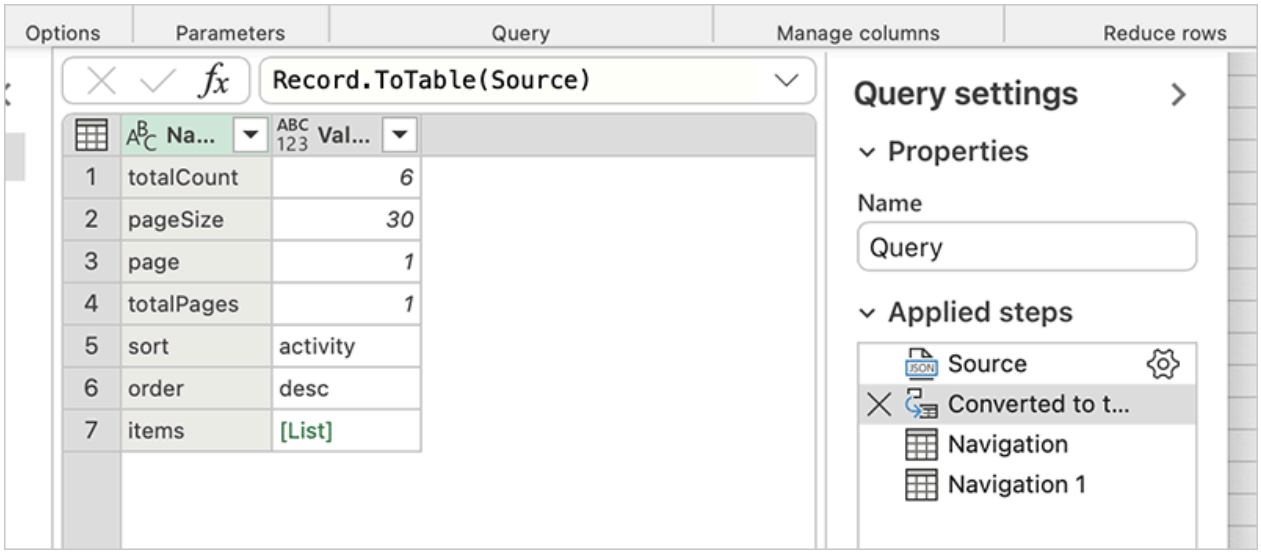
3. Click **JSON** in the Choose data source window.

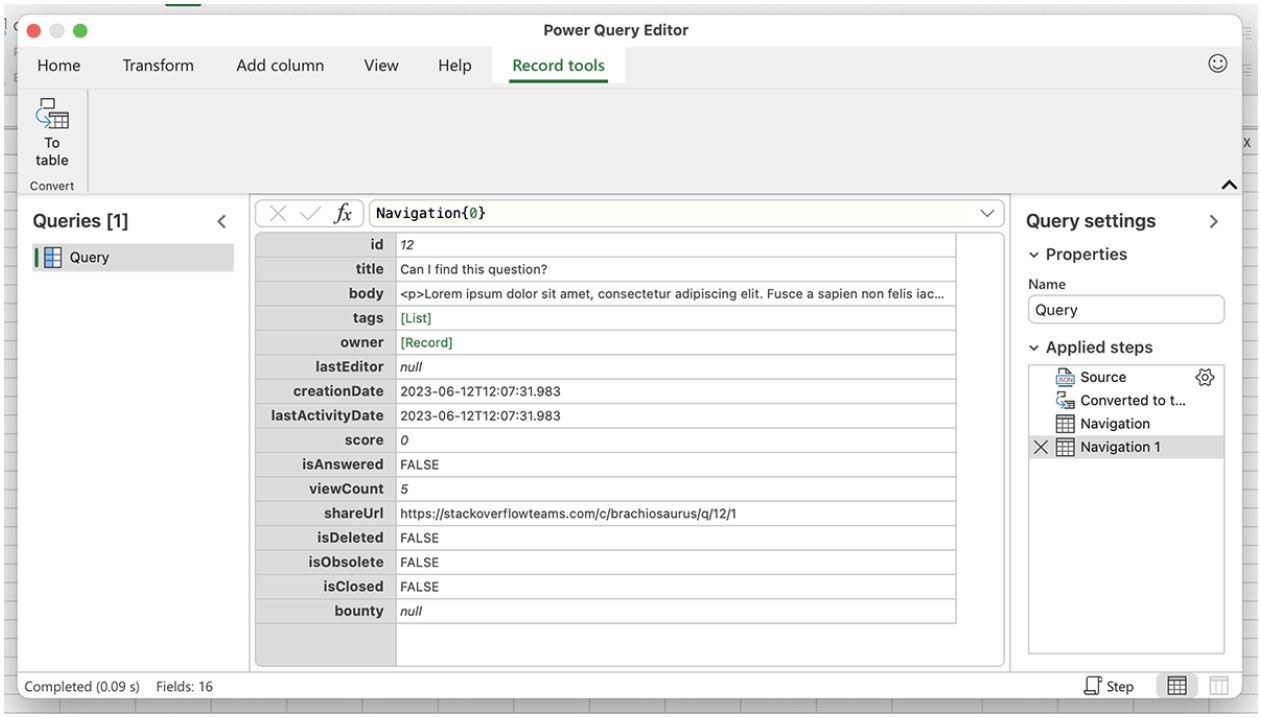


4. Select the JSON data file you saved previously.
5. The Power Query Editor will appear. Click **To table**.



6. Next, you'll convert the list into meaningful records. Select the icon at the top of the column and choose all the columns, lists, and queries you wish to pull from the Excel sheet. You should expand columns that contain nested data by clicking the button with two arrows on the column header. You can also add data or rename columns where required. For more information on refining JSON data on import, see https://learn.microsoft.com/en-us/power-query/connectors/json.





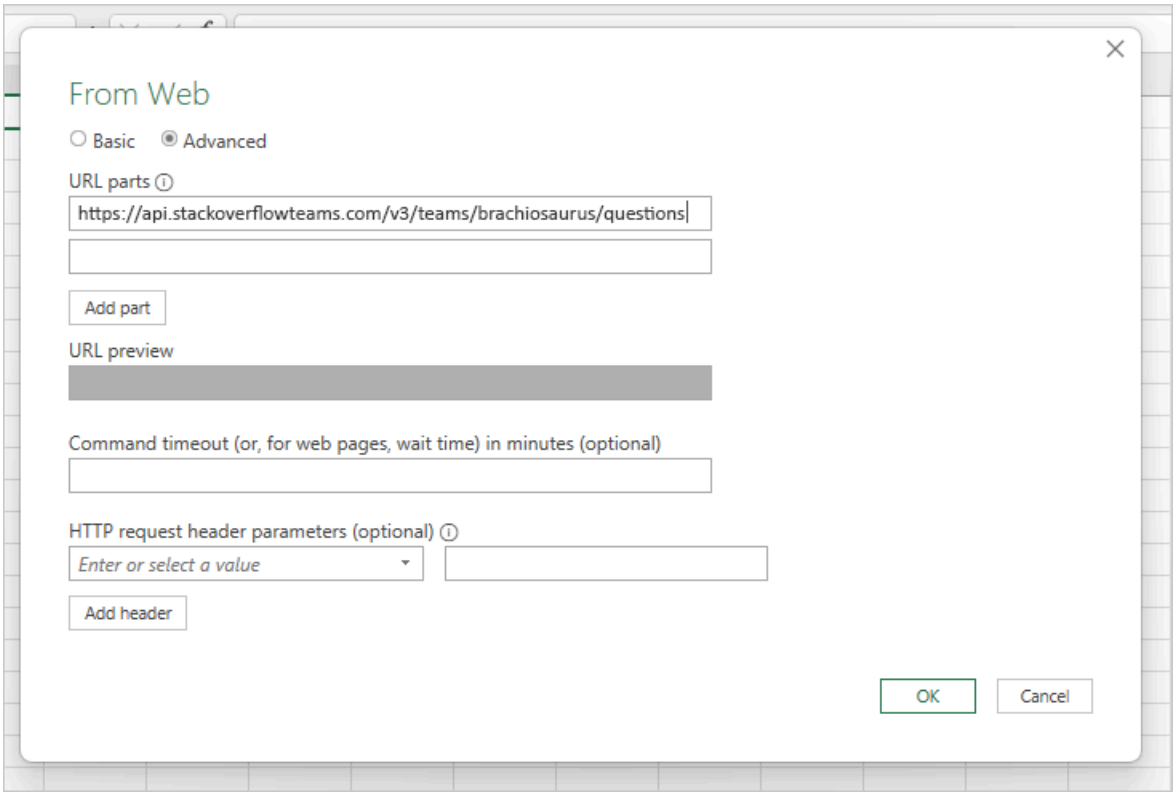
7. Click **Close & Load** to create a spreadsheet from the selected data.

You should see your Stack Overflow data in a new Excel spreadsheet.

Direct API import with Excel (Windows only)

With the Windows *desktop* version of Excel, you can use Excel's Power Query Editor to import data directly from the API (without an intermediate JSON data file).

1. Open Excel and go to the **Data** tab.
2. Click **Get Data**, then **From Other Sources**. Click **From Web**.

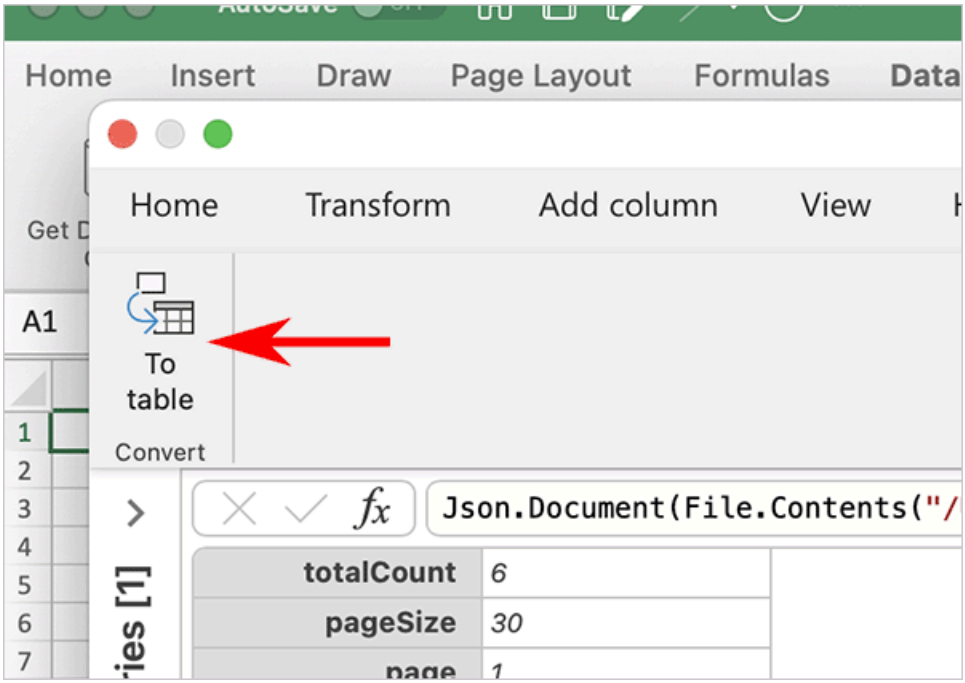


3. In the box that appears, enter your API request URL. Below is an example URL for Teams Basic or Business. Replace [your_api_token] with your API token.

   `https://api.stackoverflowteams.com/v3/teams/brachiosaurus/questions?tagId=5;api_token=[your_api_token]`

   NOTE: *The Stack Overflow API requires authorization with an API token in the URL.*

4. Click **OK**.
5. If prompted, choose the **Anonymous** authentication option and click **Connect**.
6. Power Query Editor will open, showing the data returned by the API. Click into the **Record** or **List** to navigate through the data structure and find the elements you wish to include in the spreadsheet.
7. Click **To table**.



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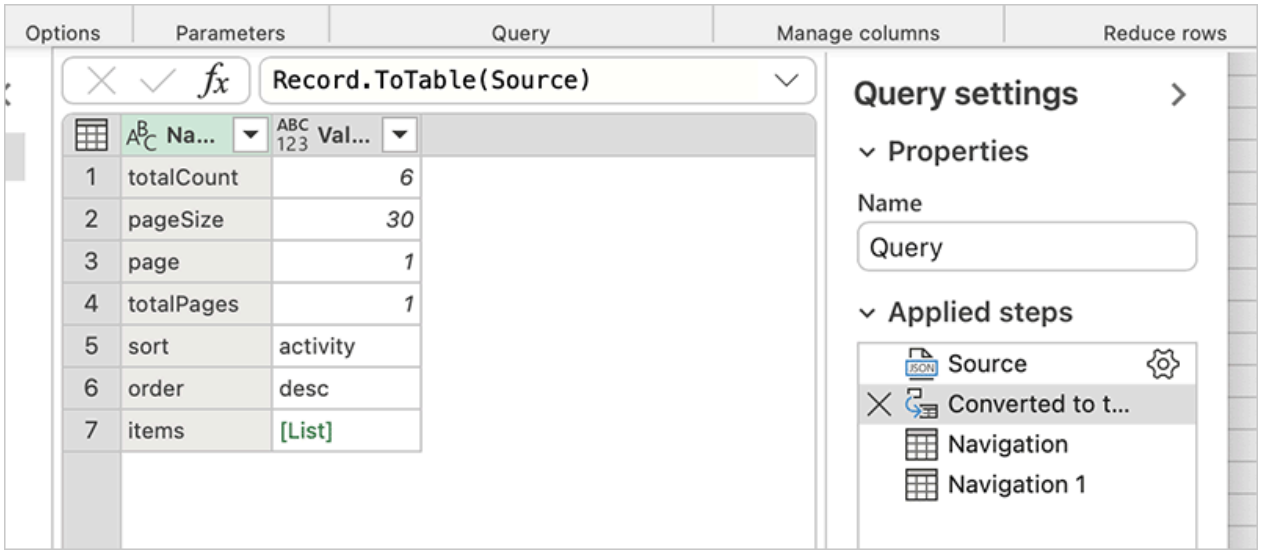

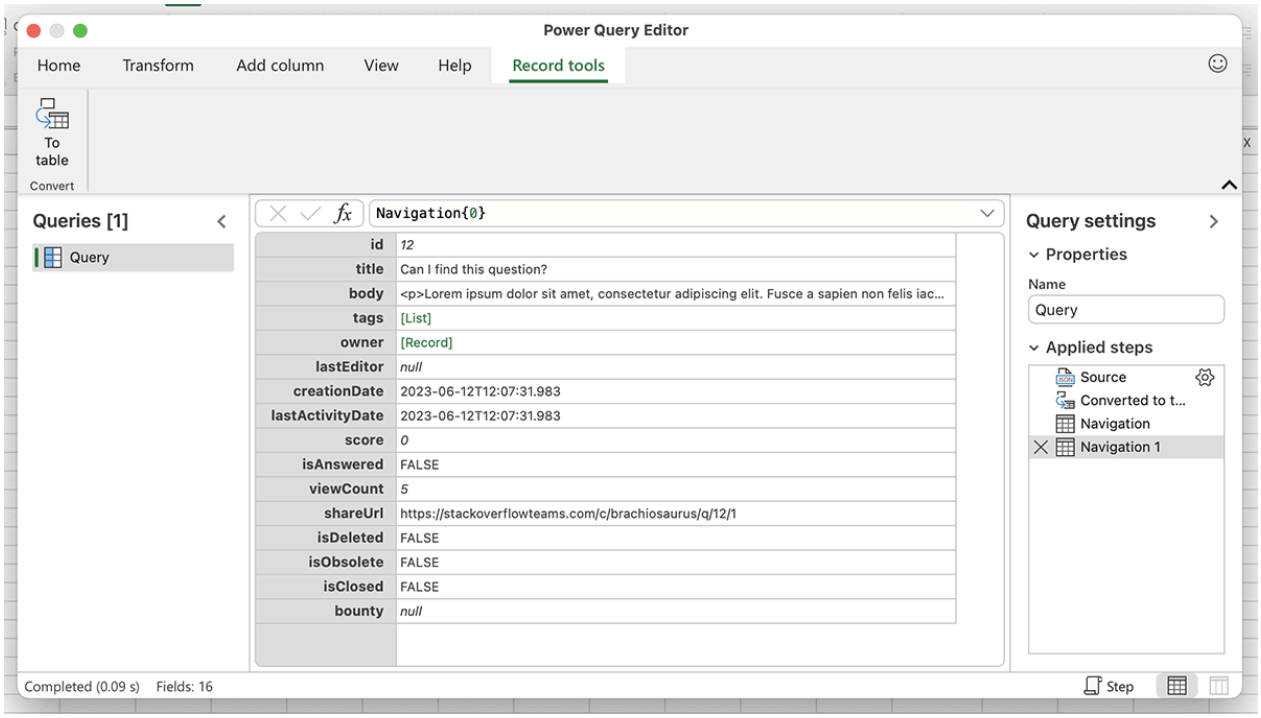

9. Click **Close & Load** to create a spreadsheet from the selected data.

Refresh the data

To refresh the data and get the latest information from the Stack Overflow API, right-click the Excel table and select **Refresh**. You can also have Excel automatically refresh the data at a set frequency. To configure the data refresh interval, click **Data**, then **Connections**, then **Properties…**. For more information, see https://support.microsoft.com/en-gb/office/automatically-refresh-linked-data-types-44cd357f-4679-4c2e-bc65-1e3dcf94809f.

Automate the data import process (Optional)

If you want to automate the data import process via API, consider using Excel's VBA (Visual Basic for Applications) as a coding solution. This allows you to vary between different API calls/ datasets and define specific intervals or the update of the data based on certain conditions. Visual Basic for Applications (VBA) is a programming language built into Microsoft Excel, which allows for a more customized solution.

Things to consider

API rate limits

Be aware of Stack Overflow's API rate limits to avoid getting temporarily banned from making API requests.

Data handling

If working with a large volume of data, you'll need to be deliberate in how you manage and analyze the data within Excel to avoid performance issues.

Need help? Submit an issue or question through our support portal.